

Claims

1. A process for the production of vitamin C from D-sorbitol, L-sorbose, L-sorbosone or L-gulose comprising the steps of:
 - (a) cultivating a microorganism in an aqueous nutrient medium containing D-sorbitol, L-sorbose, L-sorbosone or L-gulose, wherein the microorganism is selected from the group consisting of *Gluconobacter oxydans* DSM 4025 (FERM BP-3812), a microorganism belonging to the genus *Gluconobacter* and having identifying characteristics of *G. oxydans* DSM 4025 (FERM BP-3812) and mutants thereof, and
 - (b) isolating and purifying vitamin C from the fermentation medium.
- 10 2. The process according to claim 1 wherein vitamin C is produced from L-gulose.
3. The process according to claim 1, wherein the process is carried out at a pH in the range of about 4.0 to about 9.0 and in a temperature range from about 13°C to about 36°C for 1 to 5 days.
- 15 4. The process according to claim 1, wherein the process is carried out at a pH in the range of about 5.0 to about 8.0 and at a temperature range from about 18° to about 33°C for 1 to 3 days.

Case 21418 WO claims (21.09.2004)

1. A process for the production of vitamin C from D-sorbitol, L-sorbose, L-sorbosone or L-gulose comprising the steps of:

(a) cultivating a microorganism in an aqueous nutrient medium containing D-sorbitol, L-sorbose, L-sorbosone or L-gulose, wherein the microorganism is selected from the group consisting of *Gluconobacter oxydans* DSM 4025 (FERM BP-3812), a microorganism belonging to the genus *Gluconobacter* and having identifying characteristics of *G. oxydans* DSM 4025 (FERM BP-3812) and mutants thereof, and

(b) isolating and purifying the microbial produced vitamin C directly from the fermentation medium.

2. A process for the production of vitamin C from D-sorbitol, L-sorbose, L-sorbosone or L-gulose wherein a microorganism is cultivated in an aqueous nutrient medium containing D-sorbitol, L-sorbose, L-sorbosone or L-gulose and the microbially produced vitamin C is isolated directly from the fermentation broth and purified by conventional methods, said microorganism being selected from the group consisting of *Gluconobacter oxydans* DSM 4025 (FERM BP-3812), a microorganism belonging to the genus *Gluconobacter* and having identifying characteristics of *G. oxydans* DSM 4025 (FERM BP-3812) and mutants thereof.

3. A process according to claim 1 or 2 wherein the microorganism is *Gluconobacter oxydans* DSM 4025 (FERM BP-3812).

4. The process according to any one of the preceding claims wherein vitamin C is produced from L-gulose.

5. The process according to any one of the preceding claims, wherein the process is carried out at a pH in the range of about 4.0 to about 9.0 and in a temperature range from about 13°C to about 36°C for 1 to 5 days.

6. The process according to any one of the preceding claims, wherein the process is carried out at a pH in the range of about 5.0 to about 8.0 and at a temperature range from about 18° to about 33°C for 1 to 3 days.